



USING LANDFILL GAS IN A GREEN PRICING PROGRAM

OMAHA PUBLIC POWER DISTRICT

- Publicly-owned electric utility.
- Serves more than 280,000 customers in Southeast Nebraska.
- Organized as a political subdivision of Nebraska in 1946.



LFG TO ENERGY PROJECT

- **Douglas County Recycling and Disposal Facility located approximately 20 miles northwest of Omaha.**
- **Adequate landfill gas supply for 3.2 MW with potential for 6.4 MW in the near future.**
- **Landfill gas available for more than 20 years.**
- **At 3.2 MW facility will supply 2000 homes on an annual basis.**



PROJECT ORGANIZATION

- **OPPD will provide capital and own the facility.**
- **Waste Management of Nebraska will engineer, procure, and construct the facility.**
- **Waste Management of Nebraska will operate the facility.**
- **OPPD will pay Waste Management of Nebraska for fuel and non-fuel operating costs.**



PROJECT COSTS

- Capital costs - \$4,028,000.
- Communications, distribution system upgrade, and OPPD personnel costs - \$565,000.
- Total Cost \$4,593,000 or \$1,511/kW (net).



GREEN POWER INTEREST STUDY

- **Assess residential customer interest in a green power program.**
- **400 residential interviews.**



STUDY OBJECTIVES

- **Assess awareness of green power.**
- **Determine level of interest in purchasing green power.**
- **Determine preferred pricing plans.**
- **Explore willingness to sign long term contract.**



AWARENESS OF GREEN POWER

- 42% yes
- 56% no
- 2% don't know



AWARENESS OF GREEN POWER

- **Once explained landfill gas is the most appealing and favorable type of green power compared to both solar and wind with solar being the least appealing of the energy types.**
- **OPPD has developed a comprehensive education and marketing plan to increase customer knowledge of the benefits of landfill gas of energy.**



LEVEL OF INTEREST IN PURCHASING GREEN POWER

- | | |
|-------------------------|-----|
| • Very Interested | 16% |
| • Somewhat Interested | 47% |
| • Not Very Interested | 18% |
| • Not at all Interested | 15% |
| • Don't Know | 4% |



PREFERRED PRICING PLAN

- Pay a fixed rate for kWh blocks 46%
- Pay additional amount for each kWh 38%
- None 9%
- Don't Know 6%



GREEN POWER ENROLLMENT

- 51% of customers say they would participate in the green power program at a preferred level and price.
- 36% of customers say they would not participate.



TERM OF GREEN POWER ENROLLMENT

- **50% of customers felt that one year term reasonable.**
- **16% of customers felt that three year term reasonable.**
- **8% of customers felt that five year term reasonable.**
- **4% of customers felt that ten year term reasonable.**



GREEN POWER RATE STRUCTURE

- **SUPPORTER** - \$4.50 per month (Represents typical residential consumption for 5 day/month or 60 day/year).
- **PROMOTER** - \$7.50 per month (Represents typical residential consumption for 8 day/month or 96 day/year).
- **PATRON** - \$15.00 per month (Represents typical residential consumption for 15 day/month or 180 day/year).
- **SPONSOR** - \$30.00 per month (Represents typical residential consumption for 30 day/month or 360 day/year).
- Rate based on a premium of 3¢ per kWh.



PARTICIPATION

- Program participation anticipated to range from 1 to 5 percent.
- Approximately 1% at end of first year of program.
- Approximately 5% at the end of 8 years.



DECISION PROCESS

- Acceptable internal rate of return with the green power premium.
- With lower participating internal rate of return lower but still profitable.
- Fairly competitive with our higher cost generating units.
- With REPI payments - very competitive with most base load units in the industry.

